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I further certify that pursuant to the provisions of Section 38(1) of the Patents Act 1990 a complete specification was filed on 24 July 2000 and it is an associated application to Provisional Application No. PQ4445 and has been allocated No. 48795/00.



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MATRIX GAMING PTY LTD

ORIGINAL

AUSTRALIA

PATENTS ACT 1990

PROVISIONAL SPECIFICATION FOR THE INVENTION ENTITLED:

"GAME METHOD AND APPARATUS"

This invention is described in the following statement:

This invention relates to a method and apparatus for playing a game, in particular a game having an element of chance and an element of skill.

## 5 BACKGROUND

Chance plays a large part in most board games. The toss/throw of a dice is the most common means of producing an event with a random outcome. Obviously, in the case of a dice, it is the determination of which side lies uppermost once the dice comes to rest (visible to all game participants) which determines the number, symbol or colour as the random outcome. Such a device produces an ideal probability that the result will be one of six outcomes. Other random event apparatus include the toss of one or more discs (coins), the fall of a ball into one of 37 (European) or 38 (American) spaces located on a horizontally spinning wheel, etc.

15 A large and important part of most board games is the playing space, typically a planar surface marked with a route over which a player's token, marker or piece is moved. Each possible location of a token on the planar surface will have a predetermined value or significance. The shape of most planar playing surfaces is square or rectangular, but a variety of shapes can be used. There can also be various routes over which the playing token can be moved. Tokens are typically moved in a predetermined direction in accordance with the result of the random event.

25 There exists a small number of games which incorporate three-dimensional shapes and topology into the playing space. A classic example of a three-dimensional game is Mousetrap™ where it is an aim of the game to build an intricate framework which, at a predetermined time in the game, comes into play such that a trap is lowered onto a playing piece of a competing player located in the vicinity of the trap.

Typically however, the playing routes of most games is permanently marked and all possible routes are predetermined.

Skill in most games is created by requiring the participants to risk a penalty for the failure to appropriately respond to an event or wrongly predict an event or to fail to have the knowledge of a particular fact, and in the alternative to be rewarded for a correct response, prediction or fact.

5

A number of games can be played so that the participants can wager their own money so that the penalty or reward is purely monetary rather than the thrill of being better than other participants at accumulating whatever is the currency of the game (ie points, tokens, play money, etc.).

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It is an aim of the method and apparatus described herein to provide an entertaining game of chance which also requires skill, on a playing surface which is capable of changing with each occurrence of a random event and which may be played for monetary or other reward.

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#### **BRIEF DESCRIPTION OF THE INVENTION**

In a broad aspect of the invention an apparatus for playing a game comprises: a predetermined number of playing zones and a variable image space wherein each zone has a relevance to an image and further is related to the outcome of a random event such that there exists a predetermined probability of the result of the random event being related to a playing zone, and a plurality of playing pieces, each piece having a predetermined value measured in an agreed number of value units, and a random event wherein the random event is represented in a manner having relevance to the image and pieces such that upon a participant or participants associating one or more of said pieces with one or more of said zones, the result of said random event being that the participants are penalised by the removal of value or the one or more pieces or a portion of their value therefrom or they are rewarded by addition of value or additional pieces. In one aspect of the invention the reward is in proportion to the probability of the event occurring in a zone with which the piece(s) were associated. In a further aspect of the invention those values which are risked by said participants are pooled and a reward to a participant comprises a predetermined proportion of said pooled value.

In a further aspect of the invention the variable image space changes after the determination of a random event.

5 In a yet further aspect of the invention, the change of the variable image space is related to the outcome of the random event and presents the participants a new relevance to each zone which is further related to the outcome of the same or a different random event such that there exists a predetermined probability associated with each zone.

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In another aspect of the invention, a variable image space may comprise a two-dimensional image or a multi-dimensional space having a plurality of zones associated therewith wherein each image or space is presented to the participants in two-dimensional or multi-dimensional form.

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In an aspect of the invention there are one or more zones representative of a non-participant the existence of which is a potential disadvantage to all other participants.

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In a further aspect of the invention there are a plurality of random events associated with a single image space, thereby allowing a plurality of primary zones to be selected.

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Specific embodiments of the invention will now be described in some further detail with reference to and as illustrated in the accompanying figures. These embodiments are illustrative, and not meant to be restrictive of the scope of the invention. Suggestions and description of other embodiments may be included but they may not be illustrated in the accompanying figures or alternatively features of the invention may be shown in the figures but not described in the specification.

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#### **BRIEF DESCRIPTION OF THE FIGURES**

Fig. 1 depicts screen 1 of a preferred two-dimensional image space;

Fig. 2 depicts screen 2 of a preferred two-dimensional image space;

Fig. 3 depicts screen 3 of a preferred two-dimensional image space;

Fig. 4 depicts a preferred physical arrangement of a game playing apparatus according to one aspect of the invention;

Fig. 5 depicts a hand held screen having zones superimposed over a variable image space;

Fig. 6 depicts an image of a tennis court depicting the buried ball bounce location sensors.

### DETAILED DESCRIPTION OF THE INVENTION

The best way to describe the invention is to describe the playing of one example of the game.

It must be understood though, that the example provided is but one example of an infinite variety of examples since underlying the game example is a framework comprising a method of playing the game which uses one of a variety of image spaces and it is the various image spaces that change as they are determined by the game creator for the playing of a variety of scenarios on various apparatus suitable for the task. Alternatively, in other embodiments, the various image spaces are provided by live events such as sporting contests and the game method allows for various game playing modes, one of which may involve interactive betting.

In this example, as depicted in Fig 1, the variable image space is two-dimensional and comprises a planar image which, could be a picture on a board or a computer monitor or some other type of display device such as a projector or otherwise an object having an image thereon.

However, the image space can be three-dimensional and could comprise a multi-level game surface created out of cardboard or adapted to a spherical object or a three-dimensional image displayed on a computer monitor upon which zones can be allocated.

In this example, as depicted in Fig 1, the image is a pictorial representation of the continental land masses on the surface of the Earth arranged within a rectangular boundary on a planar surface such as for example a computer monitor.

- 5 Superimposed over or associated in some other way with the image is a plurality of zones. In this example, the image is divided into 36 zones. The zones are shown as having equal area but need not be so, since it is only an association. As long as the random event is random in the true sense (ie there is an equal chance of the outcome occurring in any one of the 36 zones), the zones need not be equal in area.

10

In the embodiment being described, the term superimposed is an appropriate description of the physical function required as the image, a map of the world in 2 dimensions, is conveniently split into 36 zones, the borders of which are laid over the map in a grid-like representation.

15

However, it is possible in other forms of the game for the zones to be depicted on a monitor screen as an overlay and/or physically marked on the playing surface forming the image space. Further, it is possible for the zones to be delineated by sensors built into the playing area such as in the case when the image space is a live sporting event and the random event is the serving of a tennis ball and the outcome is determined by where the ball may land outside of the tennis court, thus sensors delineating the one or more zones external of the marked tennis court playing surface are located to determine the outcome in an accurate manner and the external participants who have an interest in the outcome can be assured of the outcome

20

result. The images provided to the external participants may well superimpose zones boundaries over the sensor boundaries to assist those external participants but this arrangements is such that the zone boundaries are unseen by the tennis playing participants. Such an arrangement ensures that there is less likelihood of the game participants being influenced or influencing the event outcome. Indeed, such an arrangement may itself be randomly imposed on the live event, further ensuring the minimal likelihood that the game participants influencing the event outcome.

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It is also possible for the zones to be separate from each other, unconnected and unrelated physically to each other. As long as stated previously for the board related embodiment being described, there is an equal chance of the outcome occurring in any one of the zones, the zones do not need a physical interrelationship. However, in other embodiments, as long as it is possible to allocate odds to the likelihood of the outcome being in or associated with a particular zone, then the zones need not be physically related to each other.

In addition to the 36 zones superimposed over the image (primary zones), there are a variety of other zones which have relevance to those 36 zones.

In this board related example, these additional zones (secondary zones) are located adjacent to the 36 zones and are arranged so that their relevance to the 36 zones is spatial as well as being relevant at the discretion of the game scenario creator to the context of the image.

For convenience the 36 zones are numbered 1 to 36 and as such it is possible to identify at least two additional zones as being odd zones and even zones as depicted in Fig 1. However, it is possible to represent the zones in any 36 identifiably different ways. For example, each zone might be represented by a character and an image of their body and face can be used in the zones and the random event could be represented by a turning wheel which displays the faces of each character.

It is also possible to relate the layout of the zones in accordance with the image, which in this example, comprises the continents on the surface of the Earth. Thus at least two zones could be related to 0° to 180° longitude east and 180° to 0° longitude west, which effectively represents the numbered zones 1 to 18 and 19 to 36 respectively.

It is also possible to colour the zones which can then be displayed by colouring the grid appropriately. For example, each of the zones may be either red or black and if



two equally representative additional zones are to be used then, for example, 18 of the zones can be red and 18 of the zones can be black.

It is also possible to relate the first 12 zones with the continents displayed as depicted in Fig 1 which are the North and South Americas being associated with zones 1 to 12, the European, Western Slavic, Middle Eastern and African nations being associated with zones 13 to 24, and the Russian Federation, Asian and Australasian nations being associated with zones 25 to 36.

Clearly, some licence can be taken with descriptions of zones and the geographic accuracy of the depiction, but it will be advantageous to provide factual representations and associations so that they can be an educative element to the game as well as an entertaining one.

Furthermore, it is possible to add an additional one or more possible events in the form of additional primary zones such as those depicted by the "0" or "0" and "00" events in Fig 1 thus making the random event one of 37 or 38 possibilities. These additional events could be used to potentially disadvantage or advantage participants. If participants cannot place their pieces on those events they will be disadvantaged, or in the case where they can place pieces on those zones, there may be a benefit. For example, when the event is "0" or "00" respectively an appropriate reward is provided to the participant who chooses to play one or both of those zones. Furthermore, the event could result in all participants being penalised.

A resemblance between the number and types of zones will be seen with regard to the game of Roulette, but that is merely for convenience and it will be appreciated that alternative arrangements can exist.

It is clearly possible to have less or greater numbers of zones either primary 36 or 37 or 38 and/or secondary, and for the make-up of the secondary zones to be dependent on other features of the primary zones or the playing space used.

It is also possible to vary, even during a game, the shape of the playing space, so that in one embodiment, the playing space is rectangular within a planar playing space and then change it to a circle within a planar playing space.

- 5 It is further also possible to arrange the game theme to incorporate multiple random event outcomes so that for any one image space theme there will be two or more zones associated with the random event outcomes.

10 In a further embodiment of the display of the zones, the primary zones are arranged not unlike a pie chart with there being a slice for each zone including "0" and "00" events. In essence, there is a primary zone for each possible event. Furthermore, secondary zones could be arranged about the periphery of the circle containing the primary zones.

- 15 It is not inconceivable that if the game were played using an electronically controlled display monitor having a planar surface, the playing space could be infinitely variable, limited only by the imagination of the game scenario creator and realisable in two or three dimensions even on a planar screen (as pictorially represented in Fig 4). It may also be possible to create an electronically controlled three-dimensional playing space (eg three dimensional representation of a globe).

20 Furthermore, it is possible to use moving images rather than static images within each zone, but done, so as to maintain the relevance of each zone to the theme of the game. For example, in a sports related game, a zone may depict a moving picture of a particular player, and in a geographically related game the zone may be associated with a montage of a significant geographic location such as a national park or statues, etcetera.

25 In one embodiment, it is possible for the display of zones to be superimposed over a live television event such as a sporting contest. For example, as described briefly before a game of tennis could be the background image and a superimposed zone marking would delineate, for example, a plurality of zones into which a ball may

land during play. In one particular arrangement rectangular zones may be arranged about the periphery of the court boundary, the anticipation being that if the tennis player serving the ball is to fault, the ball will land in at least one of the rectangular zones about the periphery of the court as depicted in Fig 6.

5

Herein, the random event occurs in real time, as part of the normal play of a sporting event, while either human or electronic means are used to predetermine a possibility of the random event result being the fall of the served ball into one of the rectangular zones.

10

Furthermore, it is conceivable for the random event to be pictorially represented rather than being actually displayed, such that if the device upon which the game was represented was a mobile phone screen the lack of space and restricted image formats would necessitate a simplification of the event image as well as clear representations of the plurality of zones.

15

For example, in a game played on the restricted screen of a mobile phone a game of tennis may only be displayed using a grid to represent the relevant zones and a circle to show the path and eventual landing point on a zone. Odds and the like can be identified with alphanumerics or by recognised symbols, colours, etc. Clearly, the data reception rate of a mobile phone in today's technology is relatively low but if that is a limiting factor, the representation can be sent in various ways, predetermined code associated with the zones and odds can be stored on the phone alleviating a complete download and merely updating of outcomes need be transmitted to allow mobile phone delivery of the game method.

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The mobile phone user may place wagers on outcomes using the key pad and a cursor control to associate a zone with a bet value and value exchange between a predetermined phone betting account or to and from a stored value card insertable into the phone. Security of message exchange is expected and provided.

30

As the raw transmission and reception rate of data to and from the phone improves with new technological advances, the game play experience can be improved and the visual aspects of the game can be enhanced.

5 Clearly, the mobile phone example is just another embodiment of the way in which the game method of this invention can be delivered in a playable form to a person wishing to place wagers on the outcome of a designated random event. However, the game need not involve betting as it is illegal in some places, and in those places it will be possible to accumulate points having no redeemable value purely for the  
10 pleasure of participating or involvement in the random event.

It will be appreciated that any type of display device can be adapted for the purpose of displaying a representation of the game method and could include portable personal computers; watches/watch phones/watch radios; large screen televisions  
15 viewable by multiple persons, etc.

Interaction with the display devices is necessary and when the term piece(s) is used in this specification, it can be understood to refer to a token of predetermined value which can be represented in both the physical form (chip) or a virtual form (eg, a  
20 cursor, digital representation of a token, a digital representation associated with the user's digital certificate of identity, etc.).

Interaction may be via remote control means which allows a player/gambler to sit or stand (even in a crowd) and manipulate the location of their tokens/pieces on a  
25 display thus allowing for simultaneous game play by more than one player/gambler.

It is possible to allow the game event to be played by non-gamblers as well as gamblers. As the accumulation or loss of points or valuable consideration can be remotely tallied, it is possible for non-gamblers and gamblers to participate in a new  
30 and enjoyable manner.

Conceivably, it is possible for the game method to be interrelated to live broadcasts of sporting events. A possible scenario involving a set top box which is linked to a central control site via a communication arrangement (satellite uplink, cable returnpath, telephone/modem line etc.) which involves the set top box under central control superimposing over the received broadcast a grid or specific zone for which odds are made available for the viewer to place a wager on regarding the interaction of an aspect of the live event such as the zone of the soccer goal through which the ball will next pass.

10 The broadcast continues while the gambler/player watches with more than indifferent interest as they will have or will be manipulating piece(s)/token(s) of value over or into their chosen zone(s).

15 If the player is correct as to their choice of zone, they are automatically rewarded with additional value redeemable or playable again.

In the above scenario, it is also possible for a remote observer to interact via their mobile phone or other suitable communication device which is capable of representing the barest of information. Zones and the device may allow the user to associate one or more zones with one or more tokens of value and for their wager to be communicated to a predetermined telephone number. A central controller means records the user and wager and debits or credits to a predetermined phone betting account or events via a stored value card located in the mobile phone.

25 The key pad of the remote access device can be of a standard alphanumeric type but it can also be adapted to manipulate the display of the communications device in a way unique to the game playing method.

30 In more sophisticated embodiments of the game method, it is possible for the number of zones to vary according to the sophistication of the game player. For example, it could be possible for one remote participant to bet on an outcome using 8

zones, a further remote participant to bet on an outcome using 16 zones, and other participants on various other quantities of zones.

Furthermore, it may be possible for the same sporting event to be used as an event generator for different zones for different participants even though there are the same number of zones. The level or choice of zones to be used can be determined by the player/participant.

Clearly, there are numerous delivery options for the game method described options in fact that are not even in existence at this time but which will allow for the method to be used by participants located anywhere at any time.

Fig 5 is but one example of the display possibilities for a game. A hand held device 50 which could be a mobile telephone will contain a monitor 52 upon which can be displayed various images. In this example, a plan view of a golf green is displayed 54 having a hole 56. The remote game participant is also shown three zones, the first being the area up to the outer boundary of the green itself 54, the next being the zone delineated by line 58 and the last being the zone delineated by line 60.

The cursor 62 can be moved by the participant into any of the zones. Its location within a zone can be noted or it may be located on the boundary of two zones, it may even be located over the hole as that can also be a zone.

The choice being made by the participant is whether the golf ball to be hit by the next player will land in one of the zones on the green. If the ball does not land on the green, the house may win or the bet made is held over for the next golf shot. There are of course, innumerable options.

The house (betting authority) sets odds on the outcome of the event and the participant may have them displayed on the monitor, and then they may designate the value of one or more of their pieces/tokens/cursors as displayed on the screen.

A timer may be displayed and is used to indicate up to when the betting can be placed.

Clearly, the setting of the odds for each zone is not a trivial task but is similar to fixed  
5 odds setting for the outcome of sporting events.

Thus, if an authority willing to take wagers on the outcome of an event is willing to ascribe odds for the event to occur, then it is possible for any event during a sporting contest to be bet upon and in the context of the invention be associated with a zone  
10 or zones related to the possible outcome of that event (eg, the zone in the goal frame through which a soccer ball will pass when the next goal is scored).

Clearly, it is important that the event chosen is still a random event, but not in the true sense, ie that there is an equal probability of the outcome for each zone but that  
15 there is a probability that can be quantified by an odds setter and that there is no chance that the participants in the contest can unfairly influence the event outcome.

Thus a random event generator can be a real event or a pseudo random outcome generator well known to those skilled in the computer art.

20 In the tennis example described above, the actual player and or a particular serve is used or chosen randomly so that neither the gambler or the player will know when the outcome will be determined. Furthermore, the player is less likely to purposely fault a serve, thus further lessening a chase of player influence on the outcome.

25 Using live events, be they sporting or others, such as traffic movement or people talking, there will always be a vast array of events to choose from and upon which a probability of occurrence of a particular event can be determined. A yet further example is the odds of a soccer match having a total of three goals scored in the top  
30 left hand quadrant of the goals.

designation of the zones and the manner in which the reward or penalty is calculated. Thus the principle of having odds from the result of a random event based on zones located in respect of the live sporting or other event is maintained and used in such a variant of the invention.

5

As described in some detail previously, it is possible when playing a game based on any of the above embodiments, for the participant to use an interactive means to designate their selections. In a television based environment used in conjunction with a cable TV delivery and data collection system, the participant could indicate their selection by a variety of means, eg touchscreen input, computer cursor control (remote from the participant's location) etc. In a playing board related environment, the game pieces used by a participant are, for example, articles and characters of certain professionals associated with the theme of the game. It can also be possible for the authority providing the game/betting arrangement to receive instructions from multiple players via remote control units, physical means such as written or marked cards etc, wherein a room full of players can participate such as could exist in a betting venue or place of entertainment. The authority thus receives the required information via a manual operation but the information could be contained on marked cards or even 'SMART' cards which can contain monetary value to be used in the betting version of the game. Thus player interaction with the game playing surface is achieved via an intermediary step rather than direct interaction with the playing surface.

The selected designation or piece may be representative of monetary value. They may also have significance to the theme of the game. Alternatively the articles and character themselves could have monetary value.

In the game example described herein the pieces may be stackable, and reward for correct placement may comprise additional pieces which can be stacked to allow for higher valued piece placement prior to the next round of the game or for splitting so as to spread the coverage of that type of piece over more zones prior to the next round of the game.



It is preferable, and provided for in the following game example, for there to be a Mission Control participant. The theme of the game being described, is one of intrigue and danger associated with the operation of the Drug Enforcement Agency (DEA) and their quest to locate and arrest a drug baron of ill repute and ruthless character.

The game apparatus made available to the Mission Control participant may comprise a series of cards, or in a computer implemented arrangement, the computer can provide stored information suitable for each round or stage of the game which assists the Mission Control participant.

The game is controlled through the Mission Control participant who is coached in the setting of the scene for all other participants and non-participating onlookers, as the playing surface (space) could be large enough to gather a crowd of people about the apparatus.

The initial description and instructions provided by the Mission Control participant could be as follows:

"Alright team, as you are well aware, organised drug trafficking is a global disease. We are the antibodies that must attack this infection that is ravaging our global community. You will be briefed on the cartels, their members, and their activities by accessing the "Global Cartels Dossier" available on your portion of the playing surface. Your job is to infiltrate these organisations using your specialist skills. This will be achievable by the thoughtful use of various tools at your disposal, and by the judicious placement of those tools where you feel they may gain the maximum benefit. Mission Control will keep track of your progress along the way, awarding or deducting points based on the success of your decisions.

"When your decisions are unsuccessful the DEA will not be able to gain any ground on these cartels, and points will be lost for unsuccessful utilisation of DEA resources. If an operative uses up all of their resources the DEA will have no choice but to remove the operative from the field. Removal from the field is sometimes not an option as based on the task of the

operative, unsuccessful use of operative resources may lead to capture and torture or execution at the hands of the cartel being investigated. In these circumstances the DEA will do what it can to gain your freedom, however to ensure the future success of our missions, we will deny knowledge of your existence.

5

"However when your decisions are successful, the information you have gathered will be added to your dossiers, and you will be provided appropriate rewards in accordance with the difficulty of your decision. The operatives responsible will be awarded appropriate points based on the odds of being successful in covering a particular zone. In order to be successful in pinpointing and intercepting major drug transactions or related activities, your tasks will include collecting intelligence data on the movements of key figures within the cartels. Once a mission is completed, and the major drug shipment has been intercepted and the relevant criminals are apprehended, the operatives responsible will be promoted in rank. Good luck, and remember to be prudent with your resources."

10

15

The game pieces in this example are characters which have been chosen to fit the theme of the game scenario. A preferable list of characters is as follows:

20

Surveillance operative:

Name: Muhoney, Peter  
Rank: Constable  
Points: 2000  
Resources: Microphone - 5 points  
Spy Camera - 25 points  
Phone taps - 100 points  
Body bugs - 1000 points

25

30

Undercover operative:

Name: McCracken, Phil  
Rank: Constable  
Points: 2000  
Resources: Petty buy cash - 5 points  
Snitches - 25 points  
Big purch cash - 100 points  
Bodywire - 1000 points

35

Satellite surveillance specialist:

Name: Skyhawk, Jimmy  
Rank: Technical Operator  
Points: 2000  
Resources: Keyword phone scans - 5 points  
Street cam satellite link - 25 points

Automobile GPS - 100 points  
Infrared deal zoom - 1000 points

5 Money Laundering Investigator: Name: Pennywise, Isa  
Rank: Accountant  
Points: 2000  
10 Resources: Tax return audits - 5 points  
Asset valuations - 25 points  
Legitimate enterprise audits - 100 points  
Offshore account scans - 1000 points

15 In this example, the participant known as the Mission Control character has direct involvement and relevance to the game and acts as a narrator and is therefore able to inform and guide all participants in the game.

Mission Control will describe the relevance of the characters and their resources listed above, and if required describe how best they can be used during the game especially when the image space changes and characters/pieces are able to be placed on the playing space before the next random event. Mission Control can also describe  
20 the way in which the random event is going to be represented. In a sports related environment, Mission Control could be a television presenter explaining the sport, the zones and their predetermined odds or in a spread betting example, the favourite and the spread and of course, the way in which the game participant becomes involved. In an interactive environment such as live sports broadcasting, gambling  
25 and betting can be incorporated by using the method of the invention described herein.

30 As long as the random event generator is truly random, ie that a number between 1 and 36 and "0" and/or "00" all have an equal chance of occurring, then the way in which the outcome is represented is more a matter of theme and theatre than luck associated with the mode of representation.

A random number generator implemented in a physical embodiment such as for example a roulette-type wheel and ball could be used, or preferably in this example,

a software programme can be created to provide a random event outcome. There exists many ways in which a random outcome can be generated.

As described previously it may also be possible to have multiple random event outcomes and this can be facilitated by the use of multiple random number generators or multiple use of the same generator.

It is not only novel to represent the outcome of the random event in a unique way each time a random result is required but also it is novel to represent the random event in an interesting and entertaining way which is in accord with the theme of the game.

For example, the random event could be represented as the movement of an article over the world and the location in the world that a drug shipment lands thus becomes its location.

Thus in this example, the landing of a plane in a particular zone or a ship arriving at a port or a vehicle arriving in a state or province is the representation of the event and the outcome is the landing of the plane on a zone.

The skill of each participant is exercised in choosing which location upon the Earth they are to locate one or more of their characters and/or resources, knowing that if they disperse all their characters over as much of the Earth as they can, their penalty is at worst to lose one or more of their characters and/or resources and at best to lose a portion of the value of their characters and/or resources. In this particular example, a participant will lose a character if the random event outcome is not related to the primary or secondary zone in which that character or resource is located.

In this example, more than one participant may choose to occupy the same zone and each participant faces the same penalty if the random event outcome is not related to the primary or secondary zone occupied.

Alternatively, a participant will benefit if the random event outcome is related to the primary or secondary zone occupied by one or more of the characters or resources of that participant occupying the zone.

- 5 In this example, the benefit is dependent on how the character was positioned on or associated with the zone which is identified by the random event.

10 If the character was positioned on only one zone, then the benefit is a ratio of 35 to every one value of the character or resource. In one example, that could mean 35 of those characters are provided to the participant from character resources held at Mission Control. This return is not an ideal return since the odds of the random event are either 36:1 when a "0" event zone is incorporated into the game or 37:1 for a game incorporating an additional event zone such as for example "00". Therefore the 1:35 benefit is not a true reflection of the risk of being wrong and this indicates that 15 there exists a bias in the reward risk arrangement against a participant. Indeed, a greater bias exists if there are two additional event possibilities (zones) such as "0" and "00".

20 This aspect of the game may or may not be used. It is however up to the discretion of the game creator to allocate odds and they may even provide an explanation for the existence of the bias into the scenario being played out by the participants.

25 The odds described in the above circumstance are not unlike those applicable in a game of Roulette and for the sake of convenience the different combinations of character placement on the zones described in this example will be found to be very similar to the game of Roulette and its use of numbers and outside bets.

This aspect of the example though is not an essential feature of the invention.

30 If as described there are multiple random event outcomes associated with a single image space then there will be quite different odds to guide the reward and penalty aspects of the game. As one example, the reward for choosing to place two characters

on two zones both of which are outcomes, should provide additional reward but the reward for a single character being placed on a winning zone will be less because it will be more likely to win because there are more random events.

- 5 It is possible for the game designer to use more or less zones, variously shaped zones so that more or less than four sides meet at a common point, more or less secondary zones may be used, and furthermore the benefits and penalties can be different to those described in this example. It is also possible for colour variations, as opposed to traditional black and red to represent zones on a wheel and the playing space to be  
10 used.

Therefore, in this example, if a character (playing piece) is located along the extreme left or right-hand vertical line, it represents an association of the character with any of the three zones transverse of the grid of zones (eg a character placed on the right-  
15 hand side of zone 3 is representative of an association with zones 1, 2 and 3). The benefit is 11:1 if the random event outcome is 1, 2 or 3.

If the character is located at the intersection of four zones (eg a character placed at the intersection of zones, 2, 3, 5 and 6), it is representative of an association of that  
20 character with zones 2, 3, 5 and 6. The benefit is 8:1 if the random event outcome is 2, 3, 5 or 6.

If, as is possible with the provision of "0" or "0" and "00" events, the character is placed at the intersection of "0", "00" and zone 2, it is representative of an association  
25 of the character with zones "0", "00", 1, 2 and 3. The benefit is 6:1 if the random event outcome is "0", "00", 1, 2 or 3.

It is also possible, to place a character at the top of a column of zones, eg above 1 or 2 or 3, or at the bottom of those same columns at 34, 35 and 36. The association is thus  
30 made between the 12 zones in respective columns and the character. The benefit is 2:1 if the random event outcome is any zone in the respective column.

It is also possible, though just as all previous arrangements are not essential, to provide the ability to have an association of six zones by placing the character at the intersection of, for example, zones 28 and 30 but on the left-hand side of the playing space delineated by the zone grid. This represents an association of that character with zones 28, 29, 30, 31, 32 and 33. The benefit is 5:1 if the random event outcome is 28, 29, 30, 31, 32 or 33.

The secondary zones are likewise playable in a similar manner and also have a benefit ratio for single or combination zone play.

For example, the zones identified in Fig 1 as "odd" and "even" geozones or "red" and "black" zones are playable by placing the character in one of those zones and representative of an association of the character with respective odd and even zone numbers or red and black zones. The benefit is 1:1 if the random event outcome is either an odd or an even or red or black zone. If the event outcome is "0" or "00" the participant's penalty is the loss of the character. Zones on the wheel may also be coloured or associated with numbers on the playing surface and may vary from game to game or within the game and may have relevance to the theme (eg orange and green for a game theme entitled "Find Lucky the Leprechaun").

It is also possible to play the North and South Americas; European (etc.) Nations; and Russian Federation (etc.) Nations secondary zone which is representative of an association of the character with the zones 1-12, 13-24 and 25-36 respectively. The benefit is 1:1 if a random event outcome is any one of the respective 12 zones as described above.

A further similar arrangement is offered by the zone identified by 180° to 0° longitude west and 0° to 180° longitude east which is representative of an association of the character located in either of those secondary zones with primary zones 1 to 18 and 19 to 36 respectively. The benefit is 1:1 if the random event outcome is one of the respective 18 zones of each type.

Clearly, the complexity of the game can be increased or decreased by having more or less combinations of associations between the placement of a character and the various zones.

- 5 Furthermore, as stated previously, the penalty and reward rules can be adjusted so as to bias towards the participants or the game controller (in this particular example, Mission Control), or be totally even-handed in that regard.

10 The ability to adjust these criteria make it possible for a game designer to tailor the game scenario, difficulty and reward scheme to suit different types of participants.

For example, small children can be provided a lesser number of zones (primary and secondary) than used in the example, simpler odds for calculating rewards, and have no bias or a positive bias in the odds towards the participants and of course a  
15 simplified scenario or series of scenarios of interest to children. The game scenario may even be educational and the graphics can be made to be colourful and entertaining.

In a further example, adults legally allowed to wager, can be presented scenarios  
20 which make the game entertaining while they concurrently use their skill to maximise return for the risk they take with their own money. In this circumstance, the game designer can vary the penalty and reward rules to favour the game controller which could for example be the house in a casino, or in the case of a charity which runs the game for entertainment as well as to raise revenue. The bias could  
25 also favour the players in a fun or minimum participant risk environment.

The apparatus and methods described herein are therefore the basis for an infinite variety of scenarios and the skill of the players can be pitted against positive or negative biases built into the game.

30

For the sake of the example being described, let us say that the outcome of the random event is zone 6.



The random event 6 was depicted as an aircraft flying over the surface of the Earth which lands on zone 6 thus indicating the random event outcome produced by the random event generator.

5

Each participant having a character associated in some way with zone 6 is rewarded, and in this example each character not associated with zone 6 is forfeited to Mission Control or its nemesis according to a relevant scenario which could be the Supreme Drug Baron. Such options are under the control and wishes of the game designer.

10

Fig 2 depicts the province of Alberta, Canada, and surrounding provinces which lay within zone 6 of the first image space and which are now overlaid with a 36 zone grid.

15 Mission Control explains to all the participants that an aircraft carrying a drug cache has landed somewhere in the depicted region (any one of the 36 zones of the second image space).

Each participant then uses their skill and concept of luck to position one or more of  
20 their remaining characters and/or resources so as to be associated with one or more of the zones 1 to 36, "0" and/or "00".

Each participant has finite resources, in the form of characters and associated  
resources, and in some instances at this stage of the game they will have more than  
25 they began with as a result of the balance of the rewards and penalties that they experienced on the previous round of the game. In other cases they will have the same number of characters and resources possibly because of the balance of the reward and penalty experienced in the previous round or because they declined to participate since participation in each round is, in this example, is not mandatory. In  
30 yet other cases the participant will have less resources than they began with due to the balance of rewards and penalties they experienced on the previous round of the game.

It will be noted that the description of the secondary zones has changed in Fig 2 in accord with the subject matter of the second image space (eg Top Half of Trafficking Zone, Northern Alberta, etc.).

5

Again the descriptions provided for the secondary zones may be illustrative rather than geographically accurate, as will be described by Mission Control, or it may be allowable in the game rules which will accompany the game, that certain secondary zones (defined by their location) regardless of their description will be associated with certain of the primary zones.

10

As an example of a representation of a random event, the making of a phone call to confirm receipt of the cache of drugs is being made from somewhere in the second image space.

15

By way of example, the random event outcome is zone 20 in which is displayed a shady character making a telephone call and the radio waves emitted by the cellular telephone call are shown spreading to the whole of the playing surface.

20

Again, the participants who have located characters or resources which are associated with zone 20 are rewarded, and participants who placed their resources and characters in zones not associated with zone 20 are penalised. Then the image space changes again to that which is depicted as an example in Fig 3.

25

Fig 3 depicts the country of Thailand and its surrounds, and Mission Control informs each participant that the cellular telephone call has been received somewhere in the new image space which again has been overlaid with 36 zones and which also has associated secondary zones. It will be clear that the scenario creator will need to create not only a serial array of successively played out scenarios and associated image spaces, but also may consider adding complexity by providing a separate scenario for each possible random event outcome which would translate into a scenario for each of the 1 to 37 or 38 zones. Also combinations of scenarios could be

30

predetermined and used, depending for example on whether the prior random event outcome zone is an odd or even zone or some other such criteria.

It is also possible for the game to have further levels of scenario complexity, since the character(s) used by participants located in or associated with a zone can affect the next scenario and/or image space. For example, a character such as a Satellite Surveillance Specialist, if used correctly by a participant (for example located solely in the random event outcome zone) may determine that the next scenario will be associated with that character (eg a message of congratulations from Mission Control and a bonus reward over and above the expected reward of 35:1).

It may also be possible for the participant to partition the value of a character or resource. Say for example, a Satellite Surveillance Specialist is worth 2000 points, it may be possible to halve or quarter the character into 1000 or 500 point lots. This could easily be incorporated by an appropriate storyline and circumstance which provides for the splitting of available resources. Again it is up to the game designer to determine how this type of arrangement could or should be used.

The image space in this example is embodied by a computer screen which can be arranged to display not only the changing image space but also provides descriptions of the secondary zones, draws the coloured grid lines and provides zone numbering. In fact this embodiment offers a great deal of flexibility, since the image space can even be made to look three-dimensional thereby adding a further level of interest and entertainment.

It is conceivable though, that the image space could actually be a screen set into a large enough table so that multiple participants can simultaneously play the game. In this case, all the primary and secondary zones can be displayed on the screen in easy to read format. Flat monitor screens are now available and their size is ever increasing which thus allows for the possibility of locating a screen on a wall for a theatre-like presentation.

Fig. 4 is but one embodiment of an apparatus for playing the game described herein. A table 10 is fitted with a flat panel screen shown in the boundary 12 on which is displayed a primary zone 14 comprising 36 zones (numbers not shown) and various secondary zones in the depicted secondary zone areas 16. The remainder of the screen area can be used for game related or game unrelated images (static or moving).

Each participant (including in this example the Mission Controller) may occupy one of the locations 18 about the periphery of the table. Each location provides a control console upon which game rules can be displayed, scenario briefs, player characters and resources, value accumulation counters, etc and character and resources manipulation controls so that character and resources can be moved onto and over the primary and secondary zones. Since the random event can be represented in many ways, in this example, the random event image is displayed as it occurs over the primary zone and eventually provides an outcome by highlighting in some way the zone which is representative of the outcome. As will be noted, zone numbers have not be mentioned, since the zones can be represented in many ways as can the random event.

The computer processing that is occurring to provide the functions required to perform the method of the invention may be physically located in the table framework but they could just as easily be located remote of the table which is just a display apparatus.

Indeed, not all the participants need be located about the table, remotely located participants can also be involved since it is possible with available communication arrangements to provide those remote participants a control console and a screen which displays the same image/s that are provided to the screen 12 of the table 10.

Each participant may play with physical characters and resources or manipulate electronic versions thereof which may then be recorded and maintained by the

games processor which controls most of the previously described aspects of the game.

It is also not inconceivable that the game image space may be projected into a three-dimensional form such as for example a holographic or virtual reality representation of a three-dimensional space. Interaction by the participants in the three-dimensional space by placement of their characters and/or resources is also conceivable. It matters not as to how many dimensions the image space is provided as long as the elements described (in whatever embodiment) can interact with each other in the required manner for the performance of the game. It may also be possible to arrange for participants to interact with the game and other participants even though they are remote from one another by using a network of computers.

In yet a further adaptation of an aspect of the game method, some of the principles of keno and lotto games can be used to provide a basis for betting. Whereas, the random event in keno or lotto is the selection of say six or more numbered balls from 48, the random event can be related to one or more sporting events and in particular to one or more predetermined types of events in those sporting events, such as for example, when a grid of say 48 numbered zones is associated with the area between the goals of a football match it may be the number of the zone that the football passes through for the first goal in six separate football games that determines the six numbers to be chosen by the participant. Clearly, if the same zone occurs in the sequence, then the second or later different zone that occurs as a consequence of the second or later goals can be used.

The betting participant(s) who correctly predict the six zones can, as in keno and lotto, take a predetermined proportion of the funds bet by all participants. Also, not unlike keno and lotto there may be proportions of the pooled funds available for participants who predict less than the six zones.

A further means for creating a random event is to associate a grid with the playing arena and based on the positioning of players within zones at random times during

the game, participants win or lose depending on whether they can predict which zones have two or more players within them at the relevant times. Such a selection process could be ongoing during the match and for example every 5 minutes or it is at random times that the selections made by participants are compared with the actual game situation.

So that there can be predetermined odds associated with the random event, the authority providing the betting facilities may provide a minimum dividend to participants who correctly predict six zones regardless of the proportion of a pool of bet funds that are provided to those participants. In fact, such an arrangement can be used to provide fixed odds as well as a totalizator function.

The sporting event may not necessarily be a single sporting contest, it may be an artificial event, such as for example, a selected number of virtual bicycle riders interacting over a computer network such as the Internet. Such an arrangement could be considered as a computer controlled or generated sporting event, the outcome of which is used in the game method described.

Clearly, the association of zones will be done in accordance with a characteristic of the sporting or other event chosen so that for example in a soccer game the zones could be arranged over the face of the rectangular goal face, in a golf game they could be arranged over a green on a par three hole, etc.

The game can be adapted, at the discretion of the game creator, to be used to educate, showcase the art of artists, advertise, and/or entertain.

For example, in between sessions of the game the image space can be used to advertise or provide infotainment, the characters or scenarios may contain advertising material or the scenario itself may be created with a particular advertising-like feature.

5 The game may be arranged to mimic different sports events. For example, each sport  
in the Olympics could be depicted, and the random event of the game could for  
example be the difference between an athlete's best and worst achievements over the  
last three years. Thus each zone could represent a number of levels above, below and  
10 in between the range of their achievements so that in a random way, the athlete's  
performance is provided by the determination of a zone and participants are  
rewarded or penalised according to their prediction of the event outcome. Clearly a  
particular team sport could also be depicted and adapted with appropriate choices of  
scenarios and use of a random element such as the fall of a ball within a sports arena  
or like event.

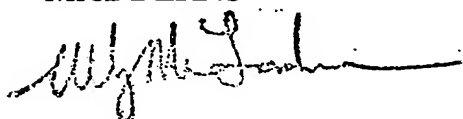
15 In an educative game, the participants will all have a level of knowledge and the  
game may use a random event to choose for example the next question for the  
participants to answer or a route through a repair process of a technical piece of  
equipment, etc.

20 Clearly, the scenarios of such a game will need to be well thought out and various  
dependencies anticipated. However, the opportunity to create for a number of  
participants an entertaining and learning environment can be very beneficial.

25 It will be appreciated by those skilled in the art, that the invention is not restricted in  
its use to the particular application described, and neither is the present invention  
restricted in its preferred embodiment with regard to the particular elements and/or  
features described or depicted herein. It will be appreciated that various  
modifications can be made without departing from the principles of the invention,  
therefore the invention should be understood to include all such modifications  
within its scope.

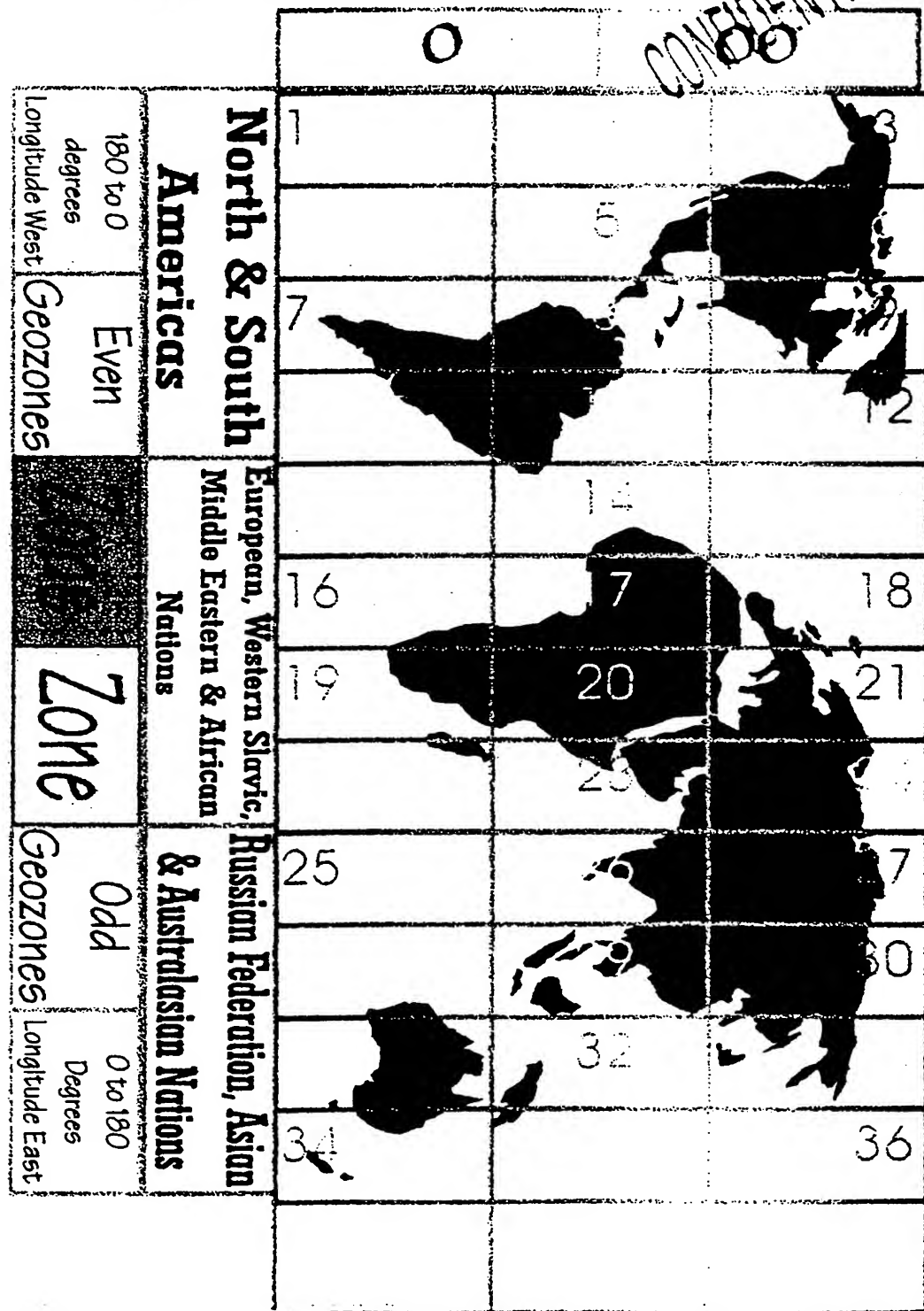
30 Dated this 3<sup>rd</sup> day of December, 1999.

MATRIX GAMING PTY LTD  
By its Patent Attorneys  
MADDERNS



# Roulematrix™ D.E.A Screen 1

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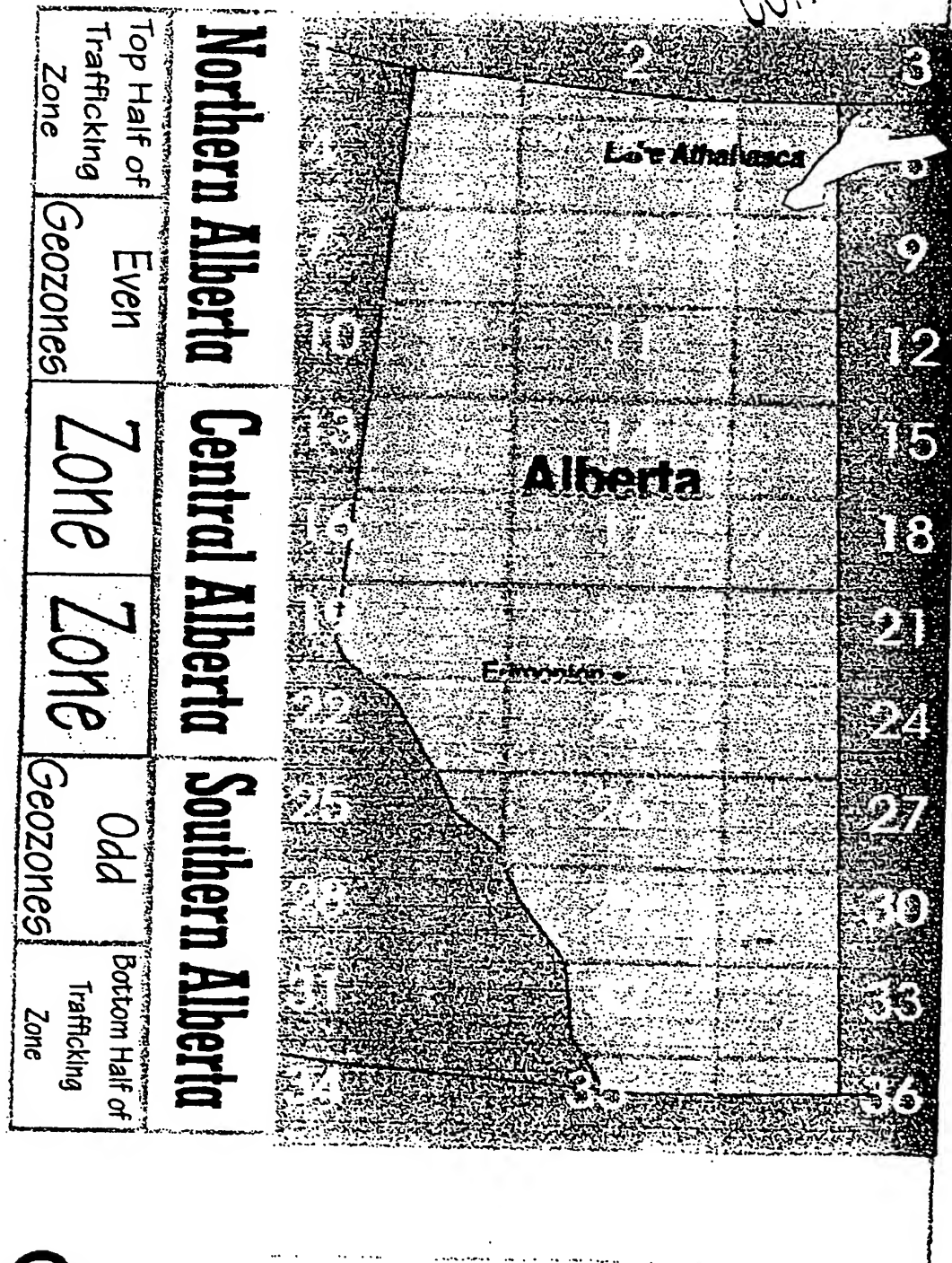
Fig. 1



# Roulematrix™ D.E.A Screen 2

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Fig. 2

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Fig. 3

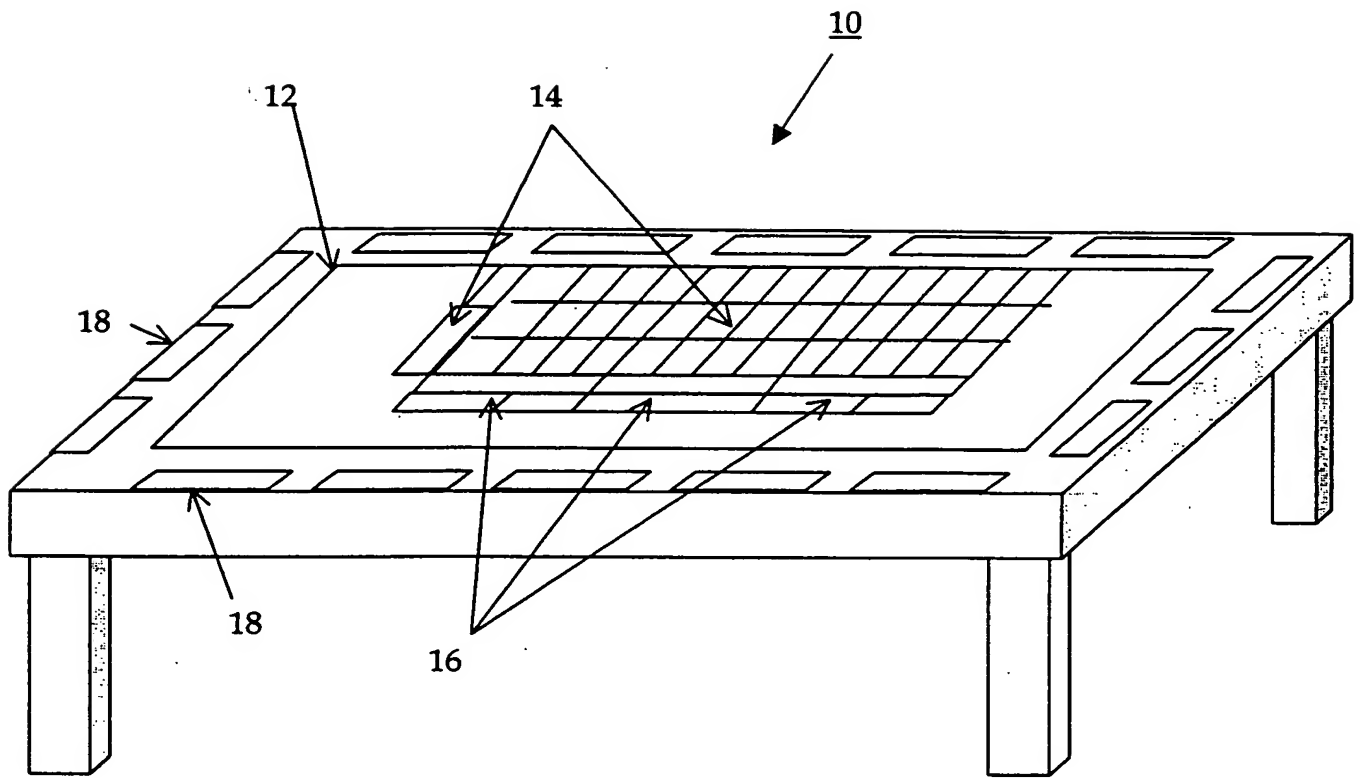


FIG. 4

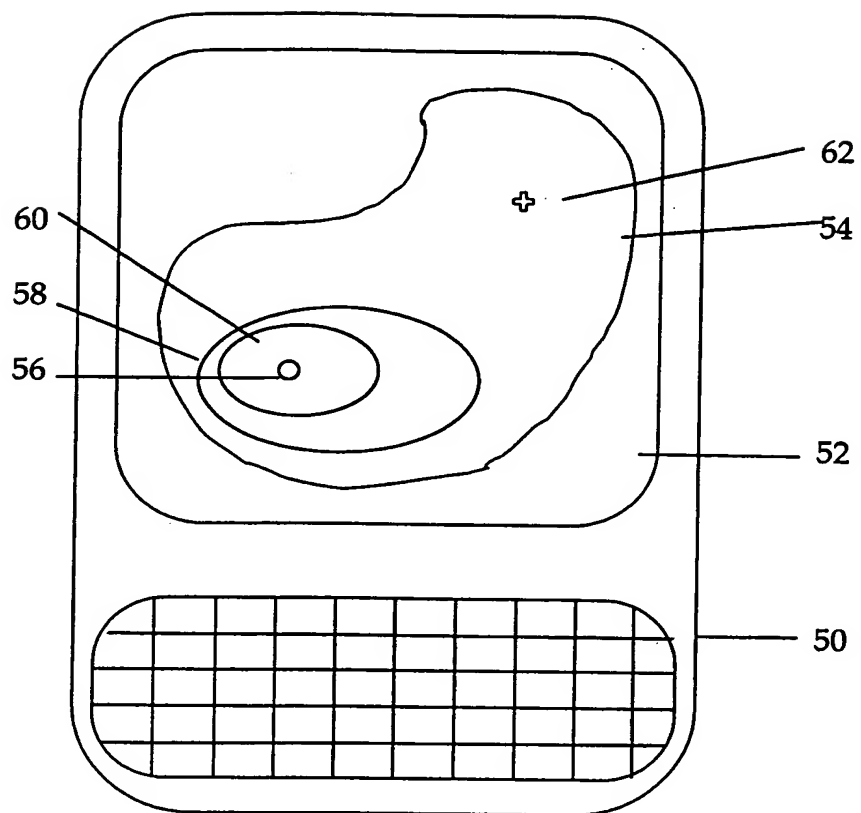


Fig. 5

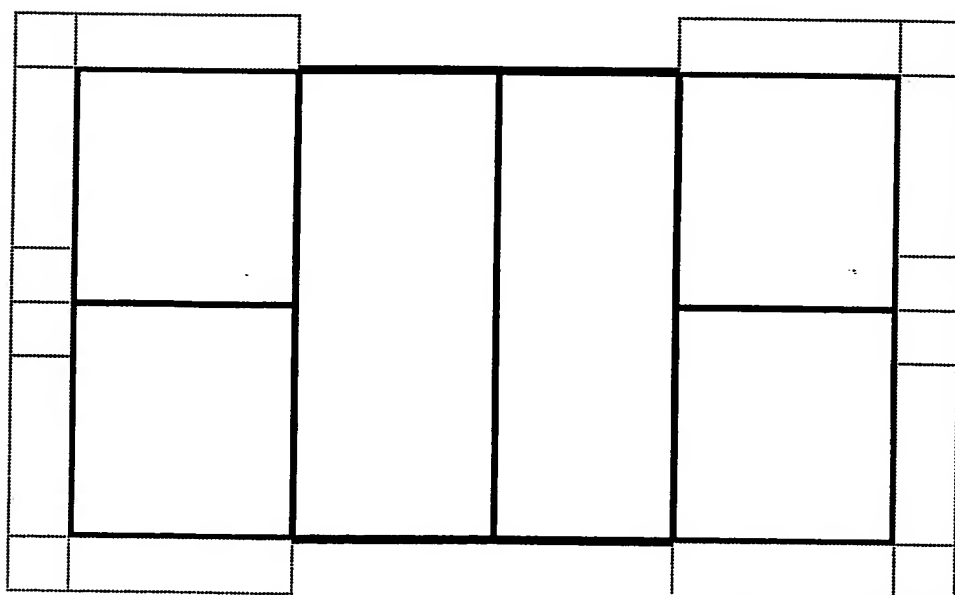


Fig. 6

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